Diversification in Resource-Dependent Countries: Its Dynamics and Policy Issues

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Introduction

If history is any guide, shifting the economy from the resource sector is a gargantuan challenge for any country that is heavily dependent on it. Since economic and export diversification can bring visible benefits in terms of accelerated long-term growth, resource-dependent countries implement various policies to decrease their dependence on the extractive sector. A successful diversification plan requires firm political commitment, consistent public policies and substantial financial resources. And creating such a plan could be easier now because of the increased access to success stories, new technologies and knowledge because of globalization and technological advancements.

Yet the execution of such policy initiatives is compounded in these countries by the lack of high quality institutions and the weak connection between the dominant resource sector and the rest of the economy. In addition, existing market failures require active government interventions to promote the diversification process.

This volume provides an analysis of economic diversification policies in six resource-dependent countries preceded by a discussion of global trends in economic diversification utilizing statistical methods. The countries are Azerbaijan, Botswana, Chile, Indonesia, Kazakhstan and Malaysia. The outcomes of diversification policies these employed differ, reflecting variations in initial conditions, policy design and implementation. Chile, Indonesia and Malaysia are widely regarded as cases of success. Copper-rich Chile developed competitive agriculture and fishing industries. Similarly, Indonesia reduced its dependence on the extractive sector and expanded its agriculture and manufacturing sectors. Remarkably, Malaysia developed a strong manufacturing sector that is both technologically advanced and well connected with the global market.

In contrast, Botswana, Azerbaijan and Kazakhstan made lackluster progress toward diversification. Though Botswana maintained stable economic growth for more than three decades, economic diversification policies have yet to produce detectable results. The case of Botswana illustrates pitfalls of economic prosperity built on resource windfalls and underscores the challenges of the diversification process. Likewise, Azerbaijan and Kazakhstan achieved macroeconomic stability and strong economic growth, but made little progress in terms of economic diversification. The reasons for policy failures in these states vary.

Table 1 presents selected economic variables of the six countries.

Table 1. Selected Economic Variables of the Case Study Countries, 2007

	GDP per Capita, PPP (Constant 2005 International $)	GDP Growth (Annual %)	Manufacturing, Value Added (% of GDP)	Gross Capital Formation (% of GDP)	High-technology Exports (% of Total Exports)
Azerbaijan	7,395	25	5	21	4
Botswana	12,660	5.3	3	41	0
Chile	13,087	5.1	14	21	7
Indonesia	3,504	6.3	27	25	11
Kazakhstan	10,259	8.9	12	36	23
Malaysia	12,766	6.3	28	22	52

Sources: The World Bank: World Development Indicators.

The main objective of the volume is to understand why and how the successful countries developed effective diversification policies. The key question that drives this policy analysis is: What role does the government play in initiating and implementing diversification policies? In particular, the case studies seek to answer the following questions:

- *Which government policies and policy instruments are more effective in promoting economic diversification?*
- *What are the main obstacles to diversifying the economic base and the export portfolio in resource-dependent countries?*
- *What is the impact of windfall revenues on the diversification process?*
- *What lessons can be drawn from countries that have been able to build on their resource endowments to diversify their economy?*

While natural resource wealth presents vast opportunities for development, countries that depend on natural resources for generating export earnings and fiscal revenues face peculiar challenges. While commodity exports bring enormous fiscal revenues for resource-abundant nations and fuel economic boom in good times, large foreign exchange inflows and volatility in commodity prices complicate macroeconomic management and make countries vulnerable to sudden price fluctuations. During the global crisis of 2008-'09, resource-dependent countries as a group suffered from more pronounced volatility than resource poor emerging, advanced, or developing economies because large declines in commodity prices and export volumes made fiscal revenues and foreign exchange earnings plummet. In many cases, exposure to the global credit crisis burst a double bubble in which economies were dependent on both volatile commodity and financial markets. On average, resource-dependent countries—as a group—experienced a plunge of approximately 7 percentage points, from an average growth rate of 5 percent in 2008 to a negative 2 percent growth in 2009, which is larger than growth decelerations that resource-poor emerging economies experienced. This drop reflects the particular risk of economic volatility that is endemic to resource-dependent nations.

With a few notable exceptions, resource-rich countries are poorly diversified in terms of the production and the export basket. Moreover, in the wake of the recent global downturn, the experience of resource-dependent countries provided compelling evidence that these economies remain highly vulnerable to various external shocks without economic and export diversification. Neither the creation of special resource funds nor rigid fiscal rules can fully protect these countries from the negative impact of excessive commodity price fluctuations. The existing academic and policy debate presents ample evidence that diversification can significantly reduce the countries' vulnerability to external shocks and facilitate favorable conditions for reaping the rewards of resource wealth. Yet, these countries lack clear policy guidelines on how to effectively diversify their economies and export portfolios.

Determinants of Economic Diversification

The general paper examines determinants of diversification in a wide range of countries, with a special focus on resource-dependent countries. The time trend analysis for these countries, as well as for advanced economies and emerging markets, illustrates that the level of economic and export diversification is significantly lower in resource-rich countries than in advanced economies and emerging markets. Moreover, the paper finds that the composition of exports in resource-dependent countries was poorly diversified and less technologically sophisticated than in other countries. Over time, both the level of diversification and product sophistication in resource-rich countries have experienced little change and remained at the lower levels. In resource-dependent countries, manufacturing value added accounts for only 11 percent of GDP, and the trend has been downward throughout the past couple of decades.

This analysis shows that infrastructure and the quality of institutions are significant determinants of economic diversification. The country is in a better position to diversify its production base if it has a well-developed physical infrastructure and viable institutions. In contrast, infrastructure and the quality of institutions seem to be of little significance for export diversification. Instead, investment and trade freedom and the measure of resource dependence determine the level of export diversification. While investment and trade freedom boost the degree to which exports are diversified, resource dependence slows down the export diversification process. Another important finding from this study is that foreign direct investment (FDI) flows facilitate economic diversification, but have negligible effects on export diversification.

The empirical analysis restricted to resource-rich countries produces broadly similar results. The quality of institutions and infrastructure are critical to the economic diversification process, while trade and investment freedom are important for export diversification. The results also illustrate that resource dependence adversely affects export diversification and helps economic diversification. This is due mainly to a detrimental impact of windfall revenues on exchange rates. On one hand, natural resource revenues provide opportunities for building physical and human capital. However, on the other hand, a large inflow of foreign exchange complicates monetary policy and accelerates currency appreciation, thus making the exports less competitive.

In all six countries included in the study, the government maintained a reasonably good macroeconomic environment and played a key role in designing and implementing economic diversification strategy. Government officials understood risks inherent in a resource-based development strategy. Furthermore, the government created special incentives and institutions to facilitate economic and export diversification. The government of Chile, for example, adopted a two-prong approach to support small and medium-sized enterprises and facilitate their access to foreign markets. This policy initiative proved to be effective in fostering the development of competitive salmon and wine industries.

One of the common diversification strategies the selected states used was the attraction of FDI direct investment in nonextractive sectors and boost export potential. The only exception is Malaysia's palm oil industry, which developed without any FDI. The government measures include tax incentives, export processing zones, building infrastructure, encouraging foreign ownership, and reducing the costs of doing business. For instance, Chile's political stability, solid institutions and independent central bank allowed the government to create a stable, predictable social, economic and financial environment that boosted confidence of trading partners and attracted high flows of FDI.

Investments in human capital have been a major factor in encouraging export-oriented industries. Availability of literate, skilled and low-cost labor was critical in developing high-tech industries in Indonesia and Malaysia, while the business skills and strong Chilean traditions of fishing and making wine enabled technological transfers from foreign firms in Chile. In general, human capital development increased productivity and enhanced competitiveness. In Kazakhstan, lack of high-skilled labor is considered as a factor that has inhibited the effectiveness of diversification policies.

Only a handful of resource-rich countries have been able to diversify their economies out of the extractive sector and expand into others. In this regard, the experiences of Chile, Indonesia and Malaysia stand out. At the beginning of their journey toward more diversified economies in terms of output and exports, all three countries adopted an import-substitution strategy and protected their economies from foreign competition. In Chile, protection of the domestic industry came in the form of high tariffs and heavy reliance on the state as the most important entrepreneur. The government applied a model of industrial policy that relied heavily on state agencies as the main engine for growth with state companies vertically involved in mining, oil, electricity, telecommunications and others. The Chilean Economic Development Agency (CORFO) was one of the most important institutions created in 1939; its primary role then was to serve as a holding company for all public enterprises and to channel Chile's industrial policy. The government abandoned this protectionism policy in 1973, since import substitution policies generated a meager average growth of 2.1 percent from 1934 to 1973. Similarly Malaysia started its diversification process by protecting the domestic economy and then abandoned this strategy by 1973.

The fact that Azerbaijan and Kazakhstan are transition economies with relatively short records of diversification policies elevates the relevance of such factors as the quality of institutions and infrastructure. The study of Azerbaijan shows that the transition economy needs to develop a viable diversification strategy and improve its human capital and intuitions. The case of Kazakhstan demonstrates that there has been little progress in terms of diversifying the production base and export portfolio despite considerable government efforts. Misaligned economic policies, insufficient regulation of the financial sector, inadequate diversification strategy and weak institutions were major factors that held back private investment in the manufacturing industries and derailed the diversification strategy. In short, strong market reforms have not been followed by similar market-oriented institutional changes, which created tensions among advanced market reforms, long-term development policies and weak institutions.

The analysis of Botswana's diversification experience demonstrates policy failures in a resource-dependent country. More than two decades since the start of diversification programs, the economy still heavily depends on the mineral sector. Limited availability of domestic financing capital, the absence of a critical mass of entrepreneurs with business acumen, limited input base and inadequate skilled personnel, infrastructure and supporting services are major factors that constrained growth in the manufacturing sector. Moreover, lack of a well-designed diversification strategy and inadequate monitoring mechanisms have not helped facilitate diversification.

In general, the volume provides an in-depth look at the economic and export diversification policies in six resource-dependent countries and outlines useful policy lessons for others aspiring to diversify their economies. The main message from this analysis is that a supportive policy environment can enable resource-dependent countries to successfully diversify their economies away from the resource sector. The diversification experience of resource-rich countries varied across nations due to differences in policy design, implementation and the degree of political commitment. The overview paper and case studies clearly identify specific factors critical to the success of diversification.

In sum, those factors are:

1. Maintaining a good macroeconomic environment;
2. Designing a realistic diversification strategy that takes into consideration local conditions and geographic factors;
3. Creating well-functioning government institutions to aid the diversification process;
4. Adopting policies to mobilize financial resources and support the general public;
5. Building adequate physical and social infrastructures to support diversification efforts.